

AMENDMENTS TO THE CLAIMS

Claims 1-10 (Canceled)

Claim 11 (New): A method for the epoxidation of organic compounds having at least one C-C double bond, for the hydroxylation of aromatic organic compounds or for the conversion of alkanes into alcohols, ketones, aldehydes and acids, respectively, the method comprising contacting a feedstock with a zeolite catalyst regenerated by a regeneration process comprising:

(I) heating a partially or completely deactivated catalyst to 250 - 600°C in an atmosphere which contains less than 2% by volume of oxygen, and

(II) treating the catalyst at from 250 to 800°C with a gas stream which contains from 0.1 to 4% by volume of an oxygen-donating substance or of oxygen or of a mixture of two or more thereof, where said gas stream contains a higher amount of oxygen as compared to the atmosphere in (I), wherein

the heating in (I) is carried out at a heating rate of from 0.1 to 20°C/min.

Claim 12 (New): The method as claimed in claim 11, wherein the regeneration process further comprises:

(III) treating the catalyst at from 250 to 800°C with a gas stream which contains from more than 4 to 100% by volume of an oxygen-donating substance or of oxygen or of a mixture of two or more thereof.

Claim 13 (New): The method as claimed in claim 11, wherein in the regeneration process the partially or completely deactivated catalyst is washed, before the heating in (I), with a solvent selected from the group consisting of water, an alcohol, an aldehyde, a ketone, an ether, an acid, an ester, a nitrile, a hydrocarbon, and a mixture of two or more thereof.

Claim 14 (New): The method as claimed in claim 12, wherein the regeneration process further comprises:

(IV) cooling of the regenerated catalyst obtained from (III) in an inert gas stream which may contain up to 20% by volume of a vaporized liquid selected from the group consisting of water, an alcohol, an aldehyde, a ketone, an ether, an acid, an ester, a nitrite, a hydrocarbon, and a mixture of two or more thereof.

Claim 15 (New): The method as claimed in claim 11, wherein in the regeneration process the partially or completely deactivated catalyst is kept at from 250 to 800°C after the heating in (I) and before treatment in (II).

Claim 16 (New): The method as claimed in claim 11, wherein in the regeneration process the oxygen-donating substance is selected from the group consisting of an oxide of nitrogen of the formula N_xO_y , where x and y are chosen to give a neutral oxide of nitrogen, N_2O , an N_2O containing exit gas stream from an adipic acid plant, NO, NO_2 , ozone, and a mixture of two or more thereof.

Claim 17 (New): The method as claimed in claim 12, wherein in the regeneration process the oxygen-donating substance is CO_2 and (II) and (III) are carried out at from 500 to 800°C.

Claim 18 (New): The method as claimed in claim 11, wherein the zeolite catalyst is selected from the group consisting of a titanium-, zirconium-, vanadium-, chromium- or niobium-containing silicalite having the MFI, BEA, MOR, TON, MTW, FER, CHA, ERI, RHO, GIS, BOG, NON, EMT, HEU, KFI, FAU, DDR, MTT, RUT, LTL, MAZ, GME, NES, OFF, SGT, EUO, MFS, MCM-22 or MEL structure, the MFI/MEL mixed structure and a mixture of two or more thereof.

Claim 19 (New): The method as claimed in claim 11, wherein in the regeneration process the catalyst is treated in (II) at from 350 to 600 C.

Claim 20 (New): The method as claimed in claim 12, wherein in the regeneration process the catalyst is treated in (III) at from 350 to 600°C.

Claim 21 (New): The method as claimed in claim 11, wherein in the regeneration process the heating in (I) is carried out at a heating rate of from 0.3 to 15 °C/min.

Claim 22 (New): The process as claimed in claim 11, wherein in the regeneration process the heating in (I) is carried out at a heating rate of from 0.5 to 10 °C/min.